

NEW SPECIES AND RECORDS OF AUSTRALIAN TINGITOIDEA (HEMIPTERA).

BY HENRY HACKER, F.E.S.

(Plates XX—XXIII.)

THE following contribution is based on the study of a collection belonging to the South Australian Museum, and the writer here tenders his thanks to that institution for the loan of this material. Most of the specimens were collected by Arthur M. Lea, who has discovered some remarkable new species, several of which he found in ant-nests. Inquilinous habits among Tingitid bugs have not, I believe, been previously recorded, and further examinations of ant colonies should greatly increase our knowledge of these interesting insects. With the exception of one species, all the holotypes have been returned to the South Australian Museum. Where the material is sufficient, paratypes have been deposited in the Queensland Museum.

SUBFAMILY CANTACADERINÆ.

CANTACADER A. et S.

The four species mentioned here do not strictly conform to the characters of the genus, as given by Champion and Distant. They possess but three well-developed pronotal carinæ; the abbreviated but sharply defined outer ones, usually present in species of other countries, are either absent or represented by hardly distinguishable scar-like marks. In *C. armatus* a small scale-like scutellum is present, and *C. leai* has a moderately large triangular one; the length of rostrum varies considerably in the different species. In their elongate heads, head spines, and general facies, however, they resemble typical members of the genus, so are included here.

Cantacader cordatus (Hacker).

Phatnoma cordata Hacker. Mem. Queensl. Mus. IX., p. 19, 1927.

There is a short and obscure keel on each side of the pronotum, close to the lateral margin, which I had previously overlooked.

Cantacader armatus n. sp.

(Plate XX, Figure 1.)

Head armed dorsally with four stout acutely pointed spines which are slightly divergent and upwardly curved; antennæ long and slender, segment I moderately stout and cylindrical, about twice as long as the second; III very long and slender; IV, fusiform, about as long as the first and second

conjoined; buccal lamina elongate, meeting beyond the front of the head; the rostrum reaches to the posterior coxæ. Pronotum rather coarsely punctured, tricarinate, the carinæ strongly raised, uniareolate; the lateral carinæ are narrowly interrupted towards the front, and then converge, forming the sides of a narrow somewhat depressed hood, which covers the base of the head between the eyes; pronotum narrow anteriorly, widening towards the base; the sides dilated, cellular, and armed with seven or eight acute spines directed outwardly; the spine at the anterior angle, and another about one-third from the base, are much larger than the others; behind the latter spine the margin is more widely dilated. Elytra sub-cordate, rather deeply emarginate posteriorly; lateral margins strongly raised and slightly compressed; a raised longitudinal line with four transverse branches on the outer side; on the inner side the branches join another raised line along the suture, dividing the discoidal area into three closed cells; areolæ of moderate and even size; legs slender.

General colour brownish ochraceous; a narrow interrupted transverse fascia on the elytra before the middle, the tips of the outer transverse veins on the elytra, and spots on the lateral margin, dark fuscous; scattered reticulations on the elytra, brown; antennal segment IV, blackish; legs brown with a paler annulation near the apex of the femora; eyes ruby. Length 4.5 mm., breadth 2.25 mm.

Holotype.—Murray Bridge, South Australia (A. M. Lea). No. 16877.

Paratypes.—Same data. In the Queensland Museum. He. 3268.

***Cantacader dentatus* n. sp.**

(Plate XX, Figure 2.)

Head and spines similar to those of *C. armatus*; antennal segments I and II also similar, the other segments are missing; the rostrum extends slightly beyond the posterior coxæ. Pronotum truncate anteriorly, and the sides are less dilated than in the previous species; the lateral margins are slightly sinuate and armed with about six short dark spines on each side. Elytra very broad, widely rounded anteriorly and laterally, angularly rounded and emarginate posteriorly; costal area broad, with five rows of moderate-sized areolæ; it is strongly raised and the anterior half is recurved (rolled).

Colour brownish ochraceous, with a few small darker spots on the elytra; a transverse irregular fascia on the costal area before the middle, a spot at the apex of the elytra on the inner side, and the pronotal spines, blackish; legs and underside brown; each abdominal segment has an obscure transverse darker band. Length 3.5 mm., breadth 2 mm.

Holotype.—Burnie, Tasmania (A. M. Lea). No. 16878. (Unique.)

The rolled-up sides of the elytra and the row of small spines on each side of the pronotum readily separate this form from the other described species.

Cantacader leai n. sp.

(Plate XX, Figure 3.)

Head very elongate, armed above with four blunt tuberculate spines arranged in two pairs; antenniferous tubercles spine-like, well developed; bucculae not projecting prominently in front of the head, separated anteriorly exposing the rostrum; from side view the head is rounded in front; the rostrum extends to the fifth abdominal segment; antennae moderately long; segment I very thin at the point of attachment, then stout, a little longer and stouter than II; III very thin at the point of attachment, suddenly becomes stout, and gradually tapers towards the apex; IV sub-fusiform, stouter towards the apex which is pointed, thinly pilose; eyes prominent. Pronotum transversely depressed in the centre, rising towards the margins, reticulated except centrally, with small areolae; the anterior margin is concavely curved and slightly raised; the lateral margins are without spines, their anterior and posterior angles rounded; the base is slightly obtuse; the median carina is sharply defined; the lateral carinae are less strongly developed and rather widely interrupted before the middle; scutellum distinct, triangular, smooth. Elytra broad-ovate, closely covered with minute even areolae; the discoidal area is divided by a strong longitudinal vein, and several weak transverse veins; the costal area is wide, five to six rows areolate, raised towards the outer margin; the elytra are slightly separated along the suture, coming together and touching near the apex. Legs slender.

General colour pale luteous, immaculate; head, and the pronotal disc transversely, ferruginous brown; femora brown; tibiae, tarsi, and the antennae, lighter brown; rostrum, and the ventral surface, yellowish brown; eyes ruby. Length 3 mm., breadth 1.5 mm.

Holotype.—Hobart, Tasmania (A. M. Lea), labelled "Inquiline." No. 16879.

Paratypes.—Dunorban, Tasmania (A. M. Lea). Together with two nymphs, and the host ant,¹ *Amblyopone australis* Erich.

Bright, Victoria (H. W. Davey). From an ant-nest. He 3269.

Phatnoma pacifica Kirk.

(Plate XX, Figure 4.)

Habitat.—Cairns District, N. Queensland (A. M. Lea).

This is the first record from Australia for *P. pacifica* Kirk, which was described by Kirkaldy² from specimens obtained at Viti Levu, Fiji. It has not previously been figured.

¹ The two ants mentioned in this paper were determined by J. Clark.

² Proc. Linnean Soc. N.S.W., xxxiii, p. 363, 1908.

Phatnoma tindalei n. sp.

(Plate XXI, Figure 5.)

Head moderately long, armed with four blunt semi-erect spines, two medially and two anteriorly; antenniferous tubercles convexly produced into a curved spine; antennæ moderately long, segment I stouter and one and a half times longer than II; III slender, stoutest near the base; IV fusiform and thinly pilose, about as long as I and II conjoined; the bucculæ project prominently in front of the head; the rostrum reaches to the first abdominal segment; eyes prominent. Pronotum rather coarsely punctured, depressed on the disc, tricarinate, the lateral carina narrowly interrupted before the middle; the anterior margin is close to the base of eyes, truncated, and slightly raised; lateral margins slightly sinuate, anterior and posterior angles acute. Elytra strongly convex; the lateral margins in front continue in a line with the sides of pronotum, convexly curved, widest in the middle, and rounded posteriorly; longitudinal and transverse veins in discoidal area strongly raised, enclosing a large hexagonal area in the middle; several branches extend from the longitudinal vein to the costal membrane, which is biseriate areolate.

Colour brownish ochraceous; a smooth transverse fascia through the depressed pronotal disc, and antennal segment IV, black; irregular mottling, chiefly on discoidal and sutural areas, and a spot on the costal membrane near the middle fuscous; the carinæ are lighter in colour, and those on the elytra have a distinct reddish tint; head ferruginous, spines pale; antennæ and legs ochraceous, the femora slightly darker. Length 2.25 mm., breadth 1.25 mm.

Holotype.—Mount Lofty Ranges, South Australia (N. B. Tindale). In moss and lichens. No. 16880.

Paratypes.—Myponga, South Australia (A. H. Elston). Mount Lofty (R. J. Burton). In moss, Belgrave, Victoria (F. E. Wilson). *He.* 3270.

In its narrower costal area and unarmed pronotum this species differs considerably from *P. pacifica* Kirk, and has a much closer resemblance to the South African species *P. æthops* Dist. and *P. testacea* Dist.

SUBFAMILY TINGITINÆ.

Oncophysa vesiculata Stål.

Habitat.—Victoria (A. M. Lea). Donnybrook, Western Australia (A. M. Lea).

According to Horvath,³ the brown forms from Lamington Plateau, Queensland, are typical of this species. There are two further forms, whether they be varieties or races, which may be readily separated according to the large series before me by the following characters:—

³ Arkiv för Zoologi, band 17A, p. 2, 1925.

Oncophysa vesiculata var **nigra** n. var.

(Plate XXI, Figure 6.)

Entirely black, including the head spines, bucculæ, antennæ, and legs. In a bright light the median carina and the eyes appear slightly reddish. Length 4.75 mm., breadth 1.375 mm.

Holotype.—Mount Arthur, Tasmania (F. M. Littler). No. 16881.

Paratypes.—Hobart and Burnie, Tasmania (A. M. Lea). Millgrove, Victoria (F. E. Wilson). He. 3276.

From the published localities, it would appear that the typical form occurs from South Queensland throughout New South Wales; the typical form and var. *nigra* both occur in Victoria; while in Tasmania var. *nigra* only is present.

Oncophysa vesiculata var **gracilis** n. var.

(Plate XXI, Figure 7.)

Slightly smaller than the typical form; length 4 mm., breadth 1 mm.; the reticulations are finer and less strongly raised, the vesicles are smoother and shining.

General colour fulvescent; head and eyes ferruginous; collum and pronotal carinæ flavous; reticulations on the pronotal vesicles and elytra, orange rufous; legs, body beneath, and antennal segments I, II, III, fulvescent; segment IV, black.

Holotype.—Cape Jarvis, South Australia (H. M. Hale). No. 16882.

Paratypes.—Same data, and Adelaide, South Australia (N. B. Tindale). He. 3277.

Oncophysa rufescens n. sp.

(Plate XXI, Figure 8.)

Head with two spines basally at sides, and three minute spines, one in the middle, and two close together near the base of the antennæ; antennæ moderately long, segment I stout and cylindrical; II slightly shorter and thinner than the first; III long and slender; IV clavate and thinly pilose. Pronotum tricarinate, the carinæ paralleled on the posterior angle; anteriorly the lateral carinæ are covered by the large reflexed paranota, which extend to the median carina, and are swollen into a large vesicle on each side. Elytra longer than the abdomen, reticulate; costal membrane narrow, uniseriate; costal area biseriate; the areolæ are all of even size, and do not become larger on the sutural area posteriorly.

General colour reddish brown; reticulations on the pronotal vesicles and the elytra, distinctly reddish; elytra paler basally, a pale suffusion at the apex of the discoidal areas, and the bucculæ, ochraceous brown; pronotal

carinae light rufous; head ferruginous; antennal segments I and II ferruginous brown; segment III, and the tibiae, testaceous; segment IV except narrowly at the base, black. Length 3 mm., breadth 1 mm.

Holotype.—Port Noarlunga, South Australia (N. B. Tindale). No. 16883.

Paratypes.—Same data, and Adelaide (N. B. Tindale). Sea beach. He. 3272.

Readily distinguished from *O. vesiculata* Stal and its varieties, by the shorter and slightly stouter build, and reddish colour, paler at the base of the elytra, and at the apex of the discoidal areas.

***Hypsipyrgias telamonides* Kirk.**

Habitat.—Cairns District, North Queensland (A. M. Lea).

The examination of a series of this species from different localities shows some variation in the shape of the pronotal vesicle. In the Brisbane forms, when viewed from the side, the anterior border rises almost perpendicularly to the top of the vesicle. In those from Cairns, the anterior border is strongly curved forward near the top, as figured by Kirkaldy; but among this series are others resembling the southern forms.

***Diplocysta bilobata* Horv.**

Habitat.—Swan River, Western Australia (A. M. Lea). One specimen in a rather mutilated condition.

***Diplocysta globuliformis* n. sp.**

(Plate XXII, Figures 9, 10.)

Head armed with five slender porrect spines; two basally at sides, subparallel; one medial, and two close together in front, converging and touching; antennal segment II slightly shorter and thinner than the first, both very short; III filiform, three and a half times longer than the fourth; IV fusiform and longer than the first and second conjoined; bucculae rather prominent, from side view sharply rounded in front; the rostrum reaches to the intermediate coxae. Pronotum anteriorly truncated, the disc entirely filled with a large and highly elevated dome-like vesicle; seen from above it is circular and somewhat shining, and is composed of large, mostly hexagonal reticulations; viewed from the side it rises in nearly a straight line from the anterior margin; the posterior outline is more convexly rounded; lateral margins widely rounded, with a row of large transverse areolae; tricarinate on the posterior angle, the carinae sub-parallel and uniarcolate; the median carina is interrupted by the pronotal vesicle; the lateral carinae continue round its base on each side. Elytra broad, laterally rounded, widest at the middle, and widely rounded posteriorly; costal area biareolate, angulated at apex of discoidal area; costal membrane biareolate, the areolae uneven in size and shape, the outer row larger than the inner.

Head, and the body beneath, black; pronotal vesicle, paranota and carinae, yellowish brown; posterior angle of the pronotum, discoidal and

sutural areas posteriorly, fuscous; costal membrane white opaque, with light-brown reticulations at the base and past the middle; the central reticulations and a spot at the apex, fuscous; legs and antennæ brownish testaceous. Length 2·875 mm., breadth 1·25 mm.

Holotype.—Thursday Island (A. M. Lea and C. T. McNamara). *No.* 16884.

Paratype.—Cairns District (A. M. Lea). *He.* 3271.

This species differs from *D. bilobata* Horv. in the shape of the pronotal vesicle and in the costal membrane being irregularly biseriate.

***Cysteochema brunnea* n. sp.**

(Plate XXIII, Figure 13.)

Oblong, moderately elongate.

Head armed with two spines basally at the sides, adpressed and slightly convergent; two small spines close together converging and touching, between the base of the antennæ, and a small central semi-erect spine; antennal segment I short and stout; II slightly shorter and narrower; the other segments missing; bucculæ rather prominent in front, from the side view, angularly rounded; the rostrum reaches to the intermediate coxae. Pronotum very strongly convex; the anterior margin is close to the eyes, slightly sinuated and somewhat raised; hood very small, sharply keeled above and slightly projecting; the disc is covered by the large reflexed paranota which meet along the middle, covering the median carina; the areolæ on the paranota are large and deeply impressed; tricarinate, the lateral carinæ paralleled on the posterior angle, gradually converge towards the disc; the median carina continues in front of the paranota, to the anterior margin. Elytra closely reticulated, the areolæ deeply impressed and smaller than those on the paranota; the lateral margins are almost straight, slightly widened at the middle, which is the same width as the pronotum; discoidal area large, outer margin almost straight; the costal area and costal membrane are very narrow, the former biareolate, the latter uniareolate, with the areolæ in the posterior half slightly larger and hyaline. Legs moderately long and stout.

Colour uniformly fuscous, opaque, excepting a paler central area near the apex of the sutural area; the reticulations on the pronotum are lighter than the membrane beneath; head spines, part of the median carina, second antennal segment, and legs, fulvescent; head and eyes, blackish; body beneath, first antennal segment, and the bucculæ, ferruginous. Length 3·25 mm., breadth 1 mm.

Holotype.—Cairns District (A. M. Lea). *Unique.* *No.* 16885.

***Cysteochema (Parada) tæniophora* Horv.**

Habitat.—Upper Williams River, N. S. Wales (Lea and Wilson). Mt. Tambourine Q., and Cairns District Q. (A. M. Lea).

Froggattia olivina Horv.

Habitat.—Launceston, Tasmania (F. M. Littler). Hobart, Tasmania (A. M. Lea). Windsor; National Park, N. S. Wales (A. M. Lea).

Monanthia amit na Horv.

Habitat.—Cairns District (A. M. Lea).

Callithrinco serratus Horv.

Habitat.—Cairns District (A. M. Lea). One example.

GYMNOTINGIS n. gen.

Head armed with five slender spines; two basally at the sides, diverging and projecting beyond the eyes, one median, straight and semi-erect, and two in front converging and touching, reaching to the second antennal segment; antennæ slender; segment I cylindrical, half as long again and stouter than the second; III filiform, and slightly curved; IV clavate, about as long as the first and second conjoined; bucculæ closed in front, sides of rostral sulcus sub-parallel; the rostrum reaches to the posterior coxæ. Pronotum moderately convex, finely and closely punctate, tricarinate; the lateral carinæ are more highly raised than the median, biareolate on the disc, and with a rounded projection at their posterior end; the median carina has a rectangular keel-like projection on the disc, and a less prominent rounded projection at the posterior end; the anterior border is strongly sinuate; hood moderate, rather narrow, and sharply keeled above; viewed laterally the anterior border extends over the base of the head, then obliquely truncated, and pointed at the highest part; the paranota are foliaceous, triareolate, roundly laminately produced anteriorly; before the middle they are reflexed and closely adpressed to the pronotum, then suddenly laminately produced and convexly curved posteriorly; viewed from above, the paranota look as though a large U-shaped piece had been cut out on each side. Elytra ovate, constricted behind the discoidal area; the outer boundary of the discoidal area is raised in the middle and at the apex; the lateral margin is multisinuate and microscopically spinose serrulate; costal membrane rather wide, biareolate, the areolæ large and irregular; costal area declivous, biareolate, the areolæ moderate; the discoidal area has four to five irregular rows, the areolæ somewhat larger in the centre; sutural area wide, with areolæ about the same size as the discoidal area. Antennæ and legs moderately long and slender. Wings nearly as long as the elytra.

Type.—*G. serrulata* n. sp.

In the structure of the paranota and the pronotal carinæ, this genus is very distinct. The paranota in *Acysta interrupta* Champ. bear a remote resemblance, but in that species they are obliterated in the middle, whereas in this genus they are entire, but the central part is bent back close to the pronotum. Among Australian genera it is perhaps nearest to *Callithrinco* Horvath.

Gymnotingis serrulata n. sp.

(Plate XXIII, Figure 14.)

Glabrous; pale brownish ochraceous; paranota and the costal membrane, yellowish, sub-hyaline, with pale-brown reticulations; eyes, and antennal segment IV excepting the extreme base, black; mesosternum, coxæ, and the abdomen beneath, brown; a small spot on the raised part of the discoidal outer border, fuscous; legs and bucculæ, pale ochraceous; structural characters as in the generic diagnosis. Length 3.125 mm., breadth 1.375 mm.

Holotype.—Cairns District (A. M. Lea). Unique. No. 16886.

MYRMECOTINGIS n. gen.

Head transverse, with five long slender spines; antennæ widely separated at the base, moderately long, and clothed with setose hairs; bucculæ closed in front, viewed laterally subrectangular in front, short, rather broad, and fringed with short hairs; the rostrum reaches to the intermediate coxæ; eyes prominent. Pronotum moderately convex, clothed with fine pile; tricarinate, the carinæ raised, uniareolate, and furnished with a row of erect spines; hood longer than wide, with rather large areolæ, longitudinally carinate above, and projecting obliquely over the head; paranota short, strongly produced in the middle, with large areolæ; the outer margin is armed with slender spines; posterior angle short and apically rounded; the metasternal orifice is not visible. Elytra longer than the abdomen, thinly clothed with fine hair; broadest at the middle, straight and narrowing behind, and rather acutely rounded apically; the lateral margins are fringed with a row of slender spines; discoidal area very large, bounded by a row of erect spines; costal membrane slightly narrower at the base, hyaline, with a single row of large tetragonal areolæ; wings not visible. Legs moderately long and slender, thinly clothed with setose hairs.

Type.—*M. leai* n. sp.

The above characters, especially the presence of both hair and spines, the finger-like hood, and the long discoidal area, separate this form from any genus known to me. The lateral marginal spines of the paranota and elytra, also those on the carinæ, appear under a high magnification to be hollow and jointed, the part beyond the joint being bristle-like and sharply pointed.

Myrmecotingis leai n. sp.

(Plate XXIII, Figure 15.)

Head with two long slender spines basally at the sides, directed outwards beyond the eyes; one submedial and two in front; the latter three are porrect, and the anterior pair extend parallel between the antennæ, to beyond the first segment; antennæ thinly covered with spinose hairs; segment I thin at the base, then stout and cylindrical; II less stout, and about half the length of the first; III filiform, about three times as long as the fourth; IV sub-clavate, as long as the first and second conjoined. Pronotal hood with large reticulations bearing scattered hairs, longer than wide, and somewhat truncated

at the top; paranota hyaline, with two rows of large areolæ. Elytra sub-pyriform; the discoidal area extends three-quarters the length of the elytra, the sides slightly convexly curved, with four rows of moderate-sized areolæ; costal area declivous, triseriate; the areolæ on the discoidal, costal, and sutural areas are about the same size.

General colour brownish buff; head, pronotum, and elytra, brown; reticulations, carinæ, and spines testaceous; membrane of hood, and the fine pile on pronotum, whitish; antennal segments I, II, and IV, femora, and the body beneath, brown; tibiæ, and antennal segment III, testaceous; eyes ruby. Length 2.5 mm., breadth 1.25 mm.

Holotype—Swan River, Western Australia (A. M. Lea). Unique. No. 16887. Labelled "Inquiline" and originally mounted with specimens of the Dolichoderine ant *Iridomyrmex conifer* Forel.

***Tingis spinicollis* Horv.**

Habitat :—Cairns District (A. M. Lea).

***Paracopium australicus* (Stal).**

Habitat :—Cairns District, Q. (A. M. Lea). Melville Island (W. D. Dodd). Moa Island, Torres Strait (C. T. McNamara). Sydney, N. S. Wales (A. M. Lea).

All these belong to the darker (almost black) form.

***Stephanitis queenslandensis* Hacker.**

Habitat.—Cairns District; Magnetic Island, Queensland (A. M. Lea).

NEOPACHYCYSTA n. gen.

Head transverse, armed with five spines; antennæ long, rather slender, contiguous at the base; bucculæ not prominent, closed in front; rostral sulcus closed behind. Pronotum broad, finely punctured, tricarinate, with foliaceous sub-parallel carinæ; hood moderate, rather narrow and highly elevated, extending over the base of head, truncated in front; from side view, convexly curved above; paranota very broad, shell-shaped, widely dilated, and elevated slightly higher than the hood, inflated and reflexed; the incurved margins and also the pronotal carinæ are fringed with fine pilose hairs; the posterior angle is reticulated and somewhat obtusely rounded apically; metasternal orifices distinct. Elytra broadly amplified from the base, narrowing beyond the middle, extending far beyond the abdomen; costal membrane wide, with three rows of large areolæ, the outer margin near the base is slightly raised; costal area declivous, with two rows of small areolæ; discoidal area large, occupying half the length of the elytra, with six to seven rows of small areolæ at the widest part; the carinæ dividing the elytral areas are strongly raised; sutural area large, the areolæ basally on the inner side are small, increasing in size apically, the outer row are tetragonal. Wings much longer than the abdomen.

Type.—*N. subopaca* n. sp.

This genus seems closely related to *Pachycysta* Champ., but the antennæ are not widely separated at the base; the pronotal carinæ do not converge in the middle; the paranota are elevated as high as the hood, which does not extend far enough to cover part of the lateral carinæ. The oblong smooth convex prominence mentioned by Champion, in front of the head, is not present.

***Neopachycysta subopaca* n. sp.**

(Plate XXII, Figures 11, 12.)

Head armed with five slender spines, two basally at sides, one median and two anteriorly, which converge at the base of the antennæ; antennal segment I cylindrical, stouter and half as long again as the second; III slender, three times as long as the fourth segment, which is pilose and longer than the first and second conjoined; the rostrum reaches to the intermediate coxæ. Pronotal carinæ strongly raised, uniseriate, the areolæ large and transverse; hood and paranota reticulated, the areolæ about the same size, those at the base of the hood are slightly smaller. Elytra pyriform; the reticulations are small on the discoidal and costal areas, larger on the costal membrane and the sutural area apically.

Hood paranota and pronotal carinæ, creamy white, sub-opaque, the reticulations varying from pale ochraceous to brown; disc of the pronotum and a spot on the median carina behind the disc, fuscous; the elytra are pale ochraceous with dark markings as follows:—A broad transverse fascia on the costal membrane before the middle, which is broken up into spots in the discoidal area; another fascia near the apex distinct on the costal membrane, becoming obsolete in the middle; a round suffusion at the apex, fuscous; costal membrane whitish opaque, excepting a few outer areolæ which are hyaline; the head, first and second, base of the third, and the fourth antennal segments, the body beneath, ferruginous; third antennal segment, and the legs, fulvescent. Eyes ruby. Length 3.5 mm., breadth 1.75 mm.

Holotype.—Maleny, Queensland, January (H. Hacker). *He.* 3273.

Paratypes.—Mount Tambourine, Queensland (A. M. Lea). *No.* 16888.

***Compseuta tropica* n. sp.**

(Text-figure 1.)

♀. Head unarmed, smooth, with a central longitudinal sulcus extending from the base to near the insertion of the antennæ; antennal segments I and II of equal length, the second somewhat thinner than the first; III slightly curved, and stouter at apex; IV basally thinner than III, stouter and pilose towards middle, as long as the first and second segments conjoined. Pronotum coarsely punctured, tricarinate, the median carina obsolete on the posterior angle; strongly constricted in front, the anterior margin truncate and touching the base of eyes; disc moderately convex; lateral margins narrowly carinate.

Elytra ovate, broadest at the middle; discoidal area large, the outer margin strongly sinuate; the costal area is biareolate at the base and apex of the discoidal area, uniareolate in the middle; the costal membrane has a single row of large sub-quadrate areolæ, becoming wider, with a few double cells, beyond the middle.



Text-figure 1. [Photo., H. Hacker.]

Head, body beneath, fourth antennal segment except basally, a lævigata transverse fascia at the base of collum, and a narrow lateral border to pronotum, black; collum, carinæ, and the disc of the pronotum ochraceous, the punctures on the disc are darker; the elytra where they cover the abdomen appear blackish; sutural area centrally, tarsi, and reticulations on costal area and membrane about the middle, fuscous; costal membrane basally and on the posterior half, hyaline with light-brown reticulations; antennæ and legs testaceous. Length 3.5 mm., breadth 1.625 mm.

♂. Differs in colour as follows:—Third antennal segment black, light brown at each extremity; collum and pronotum black, the carina and anterior margin narrowly light brown.

Holotype and *Allotype*.—Cairns District, North Queensland (A. M. Lea). No. 16889.

Paratypes.—Same data. He. 3274.

The study of this species, which agrees well with the generic diagnosis, shows that the two species *ampliatu*s and *secundus*, which were previously placed in *Compseuta*,⁴ do not belong to that genus. They differ in possessing a pronotal vesicle, and slender antennal segment IV. Their delicate lacy appearance is quite different from the stout semi-opaque insect described above. In general appearance they resemble *Gargaphia*, but their rostral groove is not interrupted by a transverse carina. Their affinities seem to be nearer *Gelchossa* as amplified by Champion, but in all probability a new genus will be required for these forms.

SUBFAMILY SERENTHIINÆ.

Epimixia alitophrosyne Kirk.

Habitat.—Mount Lofty Ranges, South Australia (N. B. Tindale). Sydney, N. S. Wales (A. M. Lea).

Epimixia vittata Horv.

Habitat.—Launceston, Tasmania (F. M. Littler). Hobart, Tasmania (A. M. Lea). Liverpool, National Park, Mittagong, Sydney, N. S. Wales (A. M. Lea). Cairns District, Bluff, Queensland (A. M. Lea). Adelaide, South Australia (R. J. Burton and N. B. Tindale).

Although ranging from Tasmania to North Queensland, and variable in size and colour, I believe all the above series to be the same species. In many the antennæ and legs are black, and the Cairns series are rather smaller, with a darker pronotal disc.

Nethersia maculosa Horv.

Habitat.—Ooldea, South Australia; Longreach, Queensland (A. M. Lea).

The series before me corresponds well with all the characters given in Horvath's description. The fresher specimens have short hairs on the pronotum and elytra, also erect setose hairs on the femora and tibiæ; in a few specimens, however, they are nearly obliterated. As these characters were not mentioned in the description, it is possible that the type was in an abraded condition.

Nethersia setosus (Hacker).

Ischnotingis setosus Hacker, Mem. Queensl. Mus. ix, p. 23, 1927, pl. vi. fig. 3.

⁴ Mem. Queensl. Mus. ix., pt. 1, p. 26, 27 (1927).

FAMILY PIESMATIDÆ.

Mcateella interioris n. sp.

(Plate XXIII, Figure 16.)

Head wide; eyes prominent and coarsely granulated; antennæ set in a large concavity between the jugæ and antenniferous tubercles; segment I greatly swollen, very small at the base; II slightly swollen, about equal in length to the first; III slender, not quite as long as the first and second conjoined; IV swollen towards the apex, fusiform, slightly longer than the third. Pronotum broad, transversely swollen behind the middle, coarsely punctate; paranota cellular, moderately wide, angular in front, narrowing and disappearing behind. Elytra ovate, a little longer than the abdomen, closely covered with small uniform areolæ; sides gently rounded; the carinæ weakly developed, but distinct; legs rather short and stout.

Head pale reddish brown; pronotum pale ochraceous with a brownish suffusion on each side towards the base; antepical fovæ reddish; scutellum reddish black; clavus pale ochraceous; elytra whitish with a brown transverse fascia covering the posterior half of the discoidal areas; lateral margins with a row of small brown spots; antennæ, legs, and the body beneath, brownish ochraceous; rostrum fuscous. Length 2.5 mm., width 1.125 mm.

Holotype.—Parachila, Flinders Range (E. L. Savage). No. 16890.

Paratypes.—Oldea; Tarcoola, South Australia (A. M. Lea). South Australia (Feuerheerdt). He. 3275.

Similar in shape to *M. splendida* Drake but differently coloured. The markings in this species are variable. In some examples, the elytral fascia is well defined at the sides, becoming obsolete towards the centre; in others the fascia is paler, and the whitish ground colour dotted with minute brown specks and reticulations.

EXPLANATION OF PLATES.

All the figures are enlarged sixteen diameters.

PLATE XX.

- Fig. 1.—*Cantacader armatus* n. sp.
Fig. 2.—*Cantacader dentatus* n. sp.
Fig. 3.—*Cantacader leai* n. sp.
Fig. 4.—*Phatnoma pacifica* Kirk.

PLATE XXI.

- Fig. 5.—*Phatnoma tindalei* n. sp.
Fig. 6.—*Oncophysa vesiculata* var. *nigra* n. var.
Fig. 7.—*Oncophysa vesiculata* var. *gracilis* n. var.
Fig. 8.—*Oncophysa rufescens* n. sp.

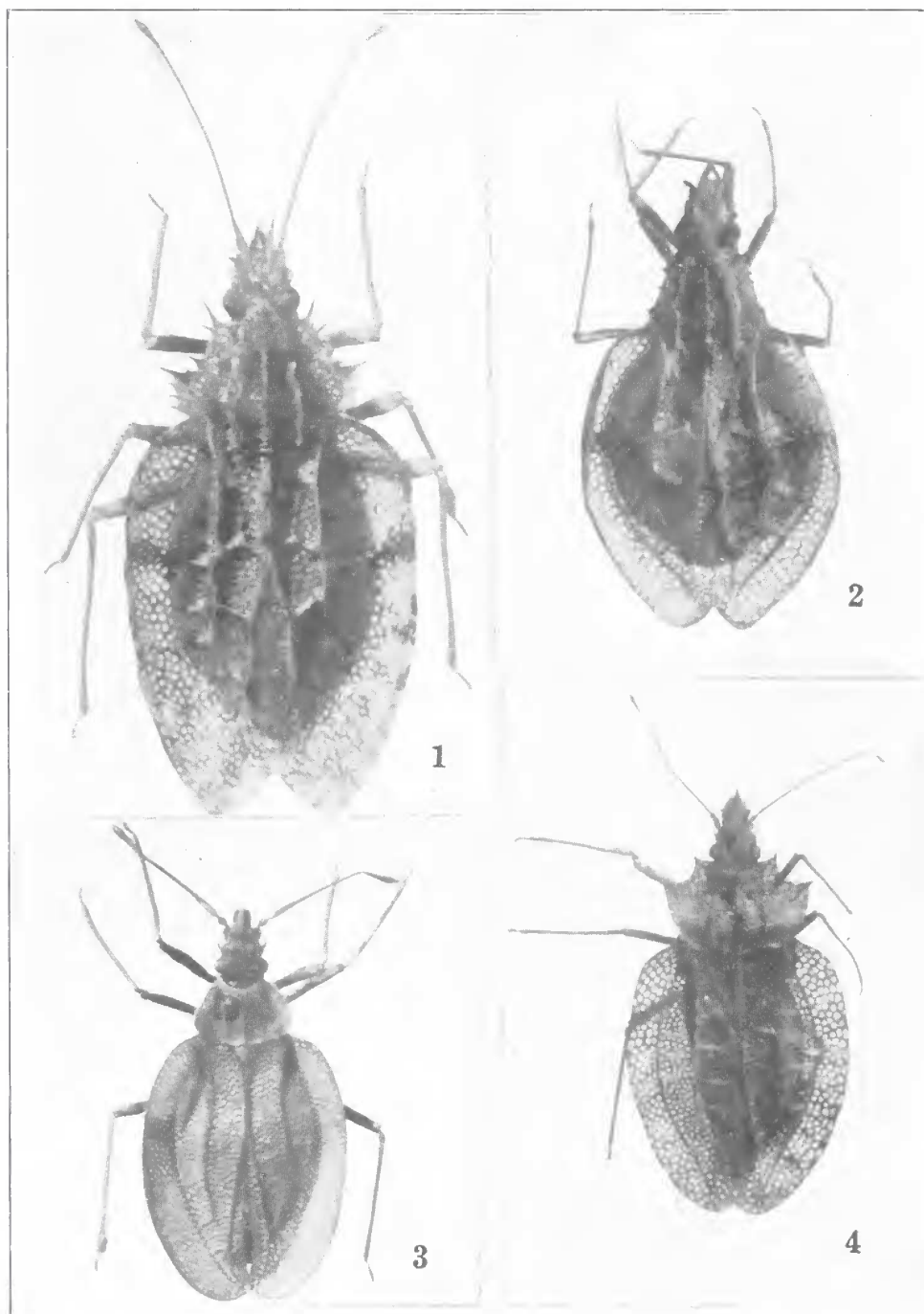
PLATE XXII.

- Figs. 9, 10.—*Diplocysta globuliformis* n. sp.
Figs. 11, 12.—*Neopachycysta subopaca* n.g. et sp.

PLATE XXIII.

- Fig. 13.—*Cysteochila brunnea* n. sp.
Fig. 14.—*Gymnotingis serrulata* n.g. et sp.
Fig. 15.—*Myrmecotingis leai* n.g. et sp.
Fig. 16.—*Mcateella interioris* n. sp.

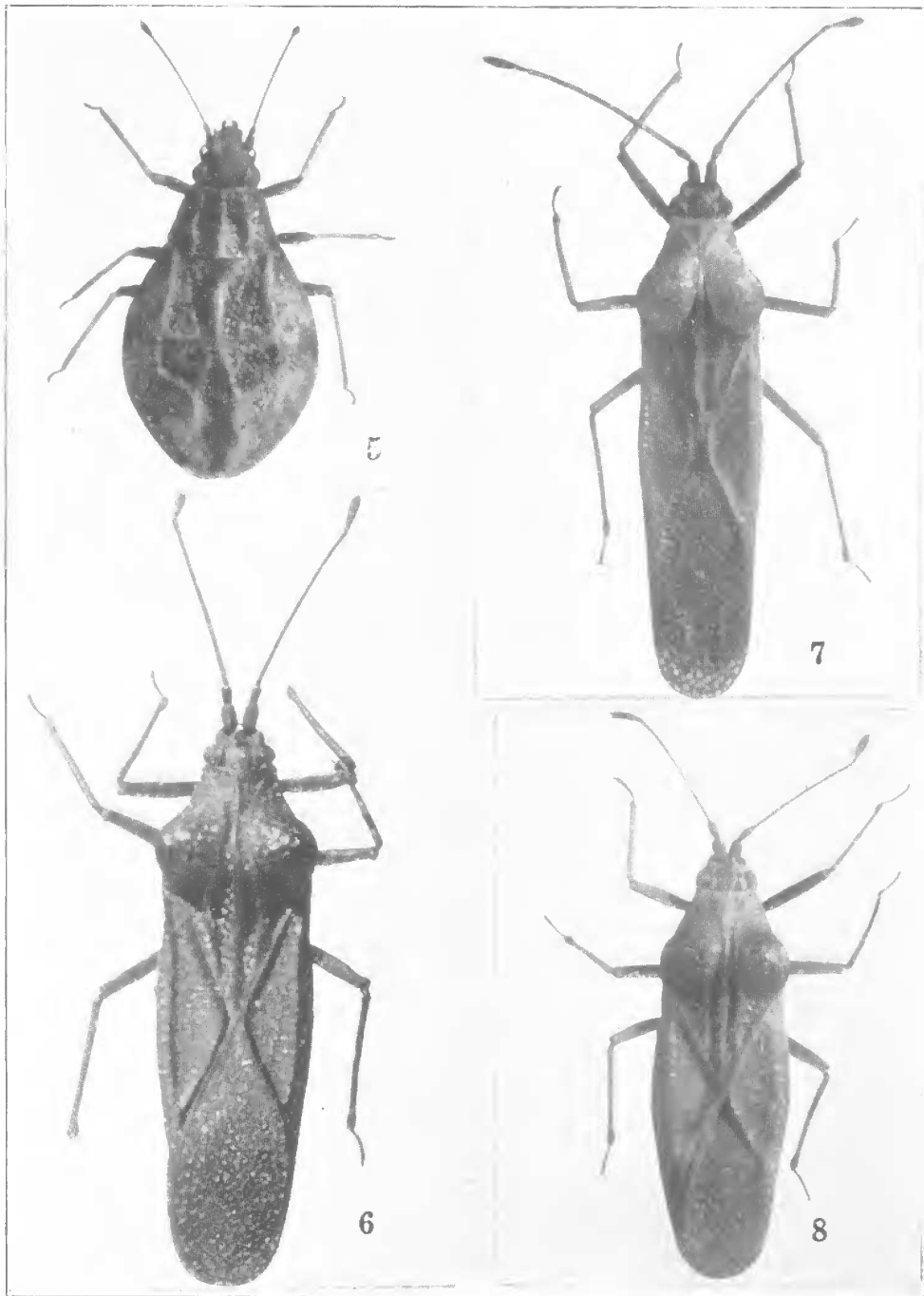
Owing to Figure 16 being strongly lit from the front to show details of head and antennæ, the posterior part appears darker than it is; the elytra beyond the transverse fascia are really as light in colour as they are basally.



AUSTRALIAN TINGITIDÆ.

Photos., H. Hacker.

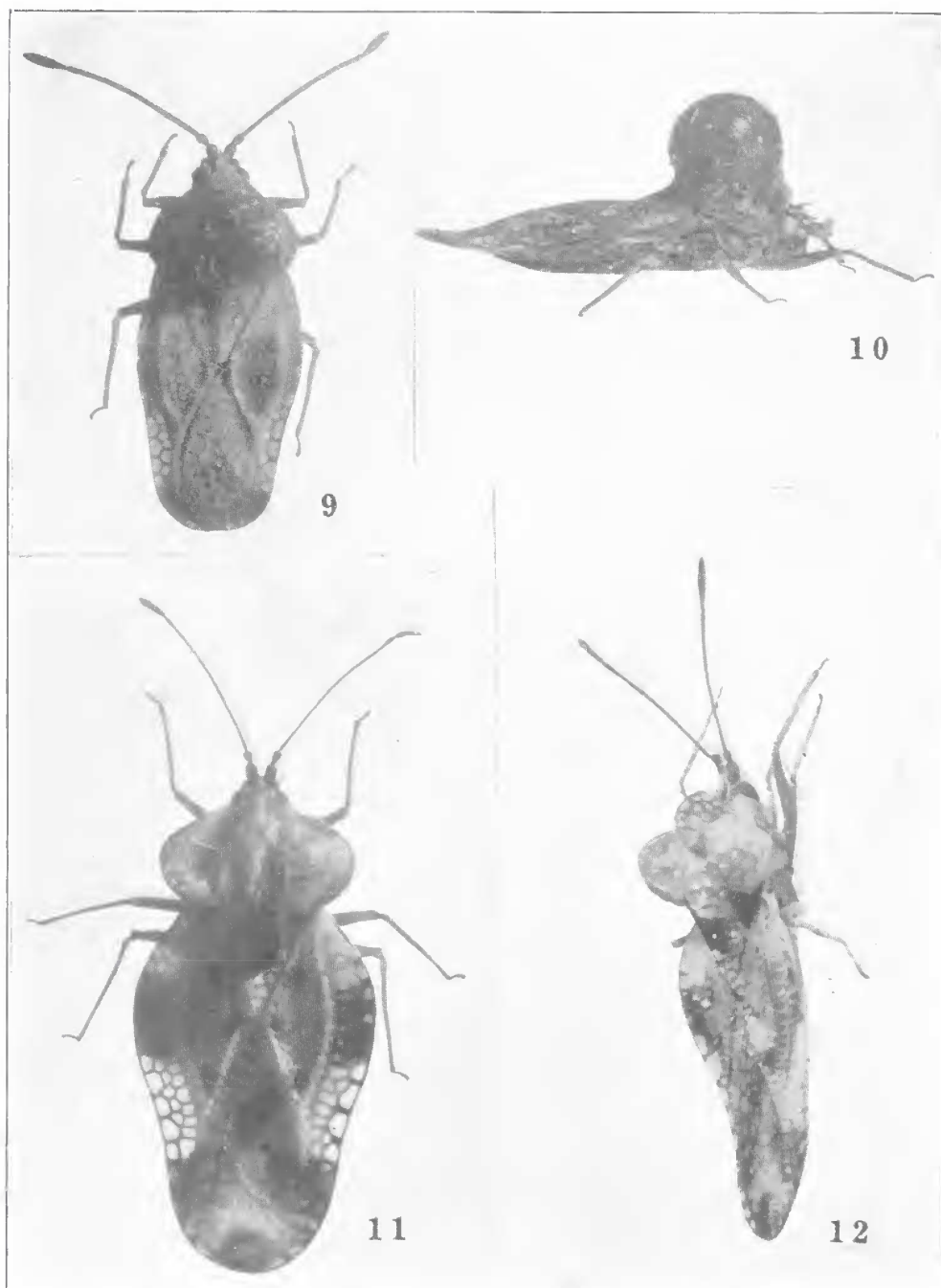
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AUSTRALIAN TINGITIDÆ.

Photos., H. Hacker.

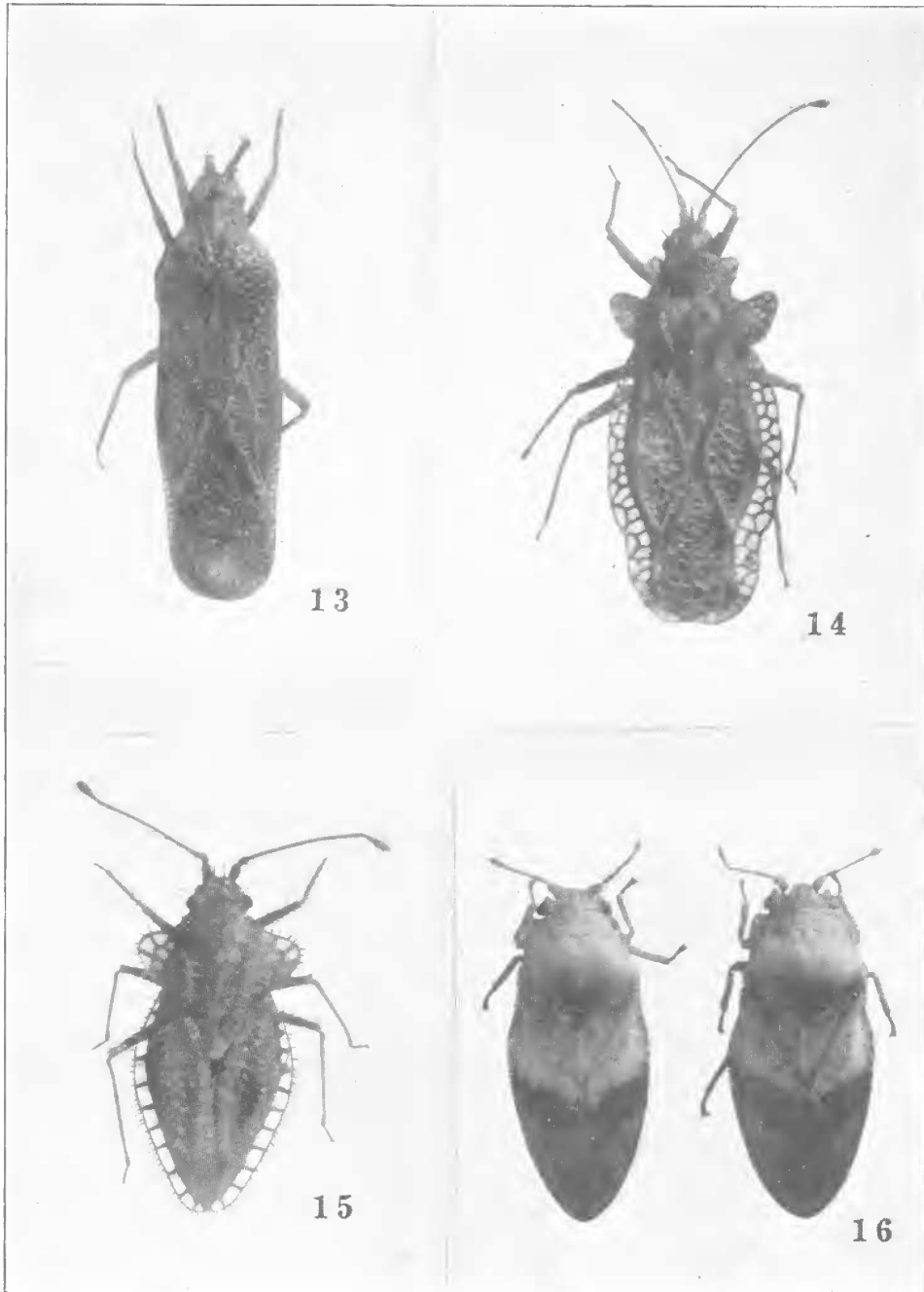
Face page 188.



AUSTRALIAN TINGITIDÆ.

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Face page 138.



AUSTRALIAN TINGITIDÆ.

Photos., H. Hacker.

Face page 188.